

1. A method for color correction of a digital image, the method comprising:
determining digital image color correction parameters for a digital image;
determining image exception characteristics; and,
applying the correction parameters to the digital image in response to the image exception characteristics.
2. A method as described in claim 1 wherein determining image exception characteristics comprises determining an image self-luminous region.
3. A method as described in claim 1 wherein determining image exception characteristics comprises determining a color distribution property.
4. A method as described in claim 1 wherein determining image exception characteristics comprises determining an unlikely gamut.
5. A method as described in claim 1 wherein determining image exception characteristics comprises determining a small gamut.
6. A method as described in claim 1 wherein determining image exception characteristics comprises determining the presence of multiple illuminants.
7. A method as described in claim 1 wherein determining image exception characteristics comprises determining the identity of at least one illuminant.
8. A method as described in claim 1 wherein applying the correction parameters to the digital image in response to the image exception characteristics comprises varying the attenuation of a correction.
9. A method as described in claim 1 wherein applying the correction parameters to the digital image in response to the image exception characteristics comprises omitting any correction.

10. A method as described in claim 1 wherein applying the correction parameters to the digital image in response to the image exception characteristics comprises using a plurality of . corrections.
11. A method as described in claim 1 wherein applying the correction parameters to the digital image in response to the image exception characteristics comprises differential application of a correction.
12. A method as described in claim 1 wherein applying the correction parameters to the digital image in response to the image exception characteristics comprises selection and application of alternate correction methods.
13. A method as described in claim 1 wherein applying the correction parameters to the digital image in response to the image exception characteristics comprises spatially varying a correction.
14. A method as described in claim 1 wherein applying the correction parameters to the digital image in response to the image exception characteristics comprises chromaticity variance of a correction.
15. A method as described in claim 2 wherein detecting an image self-luminous region comprises determining the luminance of at least one element, determining the chromaticity of a region and determining the spatial position of a region.
16. A method as described in claim 2 wherein detecting an image self-luminous region comprises determining the chromaticity of at least one element.
17. A method as described in claim 2 wherein detecting an image self-luminous region comprises determining the spatial position of at least one element.

18. A method as described in claim 1 wherein said applying the correction parameters comprises varying the attenuation of a correction in response to pixel position wherein the attenuation is changed linearly as the pixel position changes from a non-self-luminous region to a self-luminous region.
19. A method as described in claim 1 wherein said applying the correction parameters comprises varying the attenuation of a correction in response to pixel position wherein the attenuation is changed non-linearly as the pixel position changes from a non-self-luminous region to a self-luminous region.
20. A method as described in claim 2 wherein detecting a luminous region comprises detection of relatively high pixel luminance values wherein high luminance comprises a luminance value higher than other image elements in a given region.
21. A method as described in claim 2 wherein detecting a luminous region comprises detection of relatively high pixel luminance values wherein high luminance comprises a luminance value higher than a threshold value.
22. The method of claim 2 wherein detecting a self-luminous region comprises detecting the chromaticity of at least one element.
23. The method of claim 2 wherein detecting a self-luminous region comprises detecting a position of at least one element relative to the top image boundary.
24. The method of claim 2 wherein detecting a self-luminous region comprises detecting the position of at least one element relative to image boundaries.
25. A method as described in claim 1 wherein;
determining image exception characteristics comprises detecting a small color gamut distribution across the set of pixels; and,

modifying the correction parameters comprises attenuating the correction in response to detecting a small color gamut distribution.

26. A method as described in claim 2 wherein;

calculating digital image correction parameters includes calculating a first correction and a second correction; and

using a plurality of corrections includes applying the first correction to self-luminous regions and applying the second correction to non-self-luminous regions.

27. The method as described in claim 1 wherein

determining image exception characteristics comprises detecting a plurality of illuminants illuminating a common image region;

calculating digital image correction parameters includes calculating a plurality of corrections corresponding to the plurality of illuminants; and,

the plurality of corrections are used to create a single modified correction, which is applied to the common image region.

28. A system for color correction of a digital image, the system comprising:

- a parameter identifier for determining digital image color correction parameters for a digital image;
- a characteristic identifier for determining image exception characteristics; and,
- a correction processor for applying the correction parameters to the digital image in response to the image exception characteristics.

29. A set of executable instructions for color-balance correction of an image, said instructions comprising the acts of:

- determining digital image color correction parameters for a digital image;
- determining image exception characteristics; and,
- applying the correction parameters to the digital image in response to the image exception characteristics.